WE CLAIM:

- 1. An automation system comprising a work drive unit and a back-up drive unit, wherein work programs and work data are stored in the work drive unit, and further wherein a back-up copy of at least part of the work programs and work data are stored by means of a back-up program in the back-up drive unit, so that said part of the work programs and work data can be easily restored.
- 2. The automation system according to claim 1, wherein the work programs comprise system programs and application programs, and the work data comprise system data assigned to system programs and application data assigned to application programs.
- 3. The automation system according to claim 2, wherein the system programs comprise the back-up program.
- 4. The automation system according to claim 2, wherein the work drive unit has a system drive unit and an application drive unit, and the system programs and the system data are stored in the system drive unit, and the application programs and the application data are stored in the application drive unit.
- 5. The automation system according to claim 4, wherein the system drive unit has a main system drive unit and an auxiliary system drive unit, and further wherein an auxiliary operating system, its systems data and back-up program are stored in the auxiliary drive unit, and a main operating system and its system data are stored in the main system drive unit.
- 6. The automation system according to claim 1, wherein the drive units are logical drive units of a common physical drive unit.

7. The automation system according to claim 1, wherein the back-up drive unit is able to store at least two back-up copies.